ABSTRACT

A path reroute mechanism for use in communication networks comprising multiple searches for a routing path to restore traffic following a failure that could not be protected by a previously established protection route (i.e. protection tunnel, bypass, etc.) or for routing or rerouting of traffic paths for optimization or any other purpose. Each node advertises TLVs that include bandwidth allocation information used to derive the actual amount of bandwidth available for protection purposes, protected paths and unprotected paths or a portion of this information such as in the case where unprotected paths are not supported. Searches are performed on larger and larger portions of the available bandwidth until a route for the path is found.